State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-21-226

Relating to Certification of New Heavy-Duty Engines and Vehicles

CUMMINS ENGINE COMPANY, INC.

Pursuant to the authority vested in the Air Resources Board at Sections 43100, 43101, and 43102 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned at Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9; and

Pursuant to the December 15, 1998 Settlement Agreement between the Air Resources Board and Cummins Engine Company, Inc. and any modifications to the Settlement Agreement;

IT IS ORDERED AND RESOLVED: That the following 1999 model-year Cummins Engine Company, Inc. diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle-weight-rating (GVWR) over 14,000 pounds:

Fuel Type: Diesel

	Displ	acement	Exhaust Emission Control
Engine Family	<u>Liters</u>	<u>Cubic Inches</u>	Systems and Special Features
XCEXH0359BAJ (403P)	5.9	359	turbocharger Charge Air Cooler Powertrain Control Module

The engine models and codes are listed on attachments.

BE IT ORDERED AND RESOLVED: That the following are the certification exhaust emission standards for this engine family in grams per brake horsepower-hour under the Federal Test Procedure ("FTP") for Heavy-Duty Diesel Engines (Title 13, California Code of Regulations, Section 1956.8):

	Total	Carbon	Nitrogen	Particulate
	<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	<u>Matter</u>
"FTP"	1.3	15.5	4.0	0.10

BE IT FURTHER RESOLVED: That pursuant to the Settlement Agreement and any modifications thereof, the aforementioned engine family is also subject to the following emission standards, in grams per brake horsepower-hour, under the EURO III tests in the Settlement Agreement, and a "Not-to-Exceed" nitrogen oxides emission standard of 7.0 grams per brake horsepower-hour:

	Total	Carbon	Nitrogen	Particulate
	<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	<u>Matter</u>
"EURO III"	1.3	15.5	6.0	0.10

BE IT FURTHER RESOLVED: That the following are the certification exhaust emission values for this engine family in grams per brake horsepower-hour:

	Total	Carbon	Nitrogen	Particulate
	<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	<u>Matter</u>
"FTP"	0.1	0.8	4.0	0.09
"EURO III"	0.02		4.8	0.05

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Sections 2035 et seq.).

BE IT FURTHER RESOLVED: That the aforementioned engine family has been conditionally certified subject to the following conditions:

The Settlement Agreement is in effect.

2. The Settlement Agreement has not become null and void under

Settlement Agreement Paragraph 165.

3. Cummins Engine Co., Inc. is in compliance with all applicable certification requirements of the Settlement Agreement.

Engines produced on or after July 31, 1999 are not covered by this Executive Order.

Engines certified under this Executive Order must conform to all applicable California emission regulations and to all applicable terms and conditions of the Settlement Agreement.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this ______ day of December 1998.

for R. B. Summerfield, Chief Mobile Source Operations Division

Rayhael Susport

LARGE ENGINE MODEL SUMMARY

Process Code: New Submission Manufacturer: Cummins Engine Company, Inc.

EPA Engine Family: XCEXH0359BAJ

4.Fuel Rate: mm/stroke @ peak HP

Manufacturer Family Name: 5.Fuel Rate: (lbs/ht) @ peak HP 6.Torque @ RP

403P

7.Fuel Rate: mm/stroke@peak

1.Engine Code	1.Engine Code 2.Engine Model	3.BHP@RPM (SAE Gross)	mm/stroke @ peak HP (for diesel only)	5.Fuel Hate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak forme	8.Fuel Rate: (fbs/hr)@peak torque	8.Fuel Rate: 9.Emission Control (fbs/hr)@peak torque Device Per SAF11930	
VDI 0574									
N	ISB 275	275@2400	124	90	660/01600	103	99		
						3		PCM, IC, CAC	
								111 fabbus 1991 (1991)	
				Miller					
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